General

Title

Asthma care: percentage of pediatric and adult patients who have asthma and meet specified targets to control their asthma.

Source(s)

MN Community Measurement. Data collection guide: optimal asthma control 2015. Asthma education and self-management 2015 (07/01/2014 to 06/30/2015 dates of service). Minneapolis (MN): MN Community Measurement; 2015. 58 p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Outcome

Secondary Measure Domain

Clinical Quality Measure: Process

Brief Abstract

Description

This measure is used to assess the percentage of pediatric and adult patients who have asthma and meet specified targets to control their asthma:

Asthma well controlled
Patient not at elevated risk of exacerbation

Rationale

Roughly 7% of adults and children in Minnesota are currently living with asthma. Asthma is a chronic disease associated with familial, infectious, allergenic, socioeconomic, psychosocial and environmental factors. It is not curable but is treatable. Despite improvements in diagnosis and management, and an increased understanding of the epidemiology, immunology, and biology of the disease, asthma prevalence has progressively increased over the past 15 years. It is up to providers to assess patients, prescribe

medications, educate about self-management, help patients identify and mitigate triggers so patients can prevent their exacerbations.

Evidence for Rationale

MN Community Measurement. Data collection guide: optimal asthma control 2015. Asthma education and self-management 2015 (07/01/2014 to 06/30/2015 dates of service). Minneapolis (MN): MN Community Measurement; 2015. 58 p.

Primary Health Components

Asthma; optimal control; children

Denominator Description

Patients who meet each of the following criteria are included in the population:

Patient was age 5 to 50 years at the start of the measurement period.
Patient was seen by an eligible provider in an eligible specialty face-to-face visit at least two times during the last two measurement periods with visits coded with an asthma International Classification of Diseases, Ninth Revision (ICD-9) diagnosis code (in any position, not only primary).
Patient was seen by an eligible provider in an eligible specialty face-to-face visit at least one time during the measurement period for any reason. This may or may not include a face-to-face visit with an asthma ICD-9 code.
Diagnosis of asthma.

See the related "Denominator Inclusions/Exclusion" field.

Numerator Description

The number of asthma patients who meet both of the following targets to control their asthma:

Asthma well controlled (using the most recent asthma control tool result available during the measurement period)
Patient not at elevated risk of exacerbation

See the related "Numerator Inclusions/Exclusions" field.

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

Additional Information Supporting Need for the Measure

- Prevalence with Adults: The *Asthma in Minnesota 2008 Epidemiology Report* published by the Minnesota Department of Health noted that in 2007:
  - 10.9% of adults in Minnesota reported that they had been told sometime in their lifetime that they had asthma; 7.7% reported that they still had asthma.

    - That translates to an estimated 429,000 Minnesota adults who have a history of asthma and an estimated 303,000 who currently have asthma (Minnesota Department of Health, n.d.).
- Prevalence with Children: In 2006, the Minnesota Behavioral Risk Surveillance System (BRFSS) reported that:
    - 9.5% of children (age 0 to 17) in Minnesota have been diagnosed with asthma, and 7% were reported to currently have asthma.
    - That translates to an estimated 116,000 Minnesota children with a history of asthma and an estimated 85,000 who currently have asthma. The prevalence of asthma among children has remained stable since 2003 (Centers for Disease Control and Prevention [CDC], n.d.).
- Prevalence Nationally: An estimated 22.2 million adults and 6.5 million children currently have asthma in the United States.
- Minnesota Costs: The total costs for asthma in Minnesota for 2003 were estimated at $363.9 million, including $208.6 million in direct costs of office visits, emergency department (ED) visits, hospitalizations and medication, and $155.3 million in indirect costs of missed school and work days (Coffey et al., 2006).
- National Costs: In 2004, the economic costs of asthma for the United States were estimated at more than $16 billion. This figure included $4.6 billion in lost productivity. Updated estimates for direct medical expenditures alone in 2007 were $37.2 billion (Kamble & Bharmal, 2009). The societal costs of asthma are acutely felt in the pediatric population with asthma cited as the most frequent cause of pediatric emergency room use and hospital admissions as well as the leading cause of school absences.

Evidence for Additional Information Supporting Need for the Measure

Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System. [internet]. Atlanta (GA): Centers for Disease Control and Prevention (CDC); [2].

Coffey RM, Ho K, Adamson DM, Matthews TL, Sewell J. Asthma care quality improvement: a resource guide for state action (prepared by Thomson Medstat and The Council of State Governments under contract No. 290-00-0004). Rockville (MD): Agency for Healthcare Research and Quality (AHRQ), Department of Health and Human Services (DHHS); 2006 Apr. 143 p. (AHRQ publication; no. 06-0012-1).

Kamble S, Bharmal M. Incremental direct expenditure of treating asthma in the United States. J Asthma. 2009 Feb;46(1):73-80. PubMed

Minnesota Department of Health. Asthma research and data. [internet]. Minneapolis (MN): MN Community Measurement; [2].

MN Community Measurement. Data collection guide: optimal asthma control 2015. Asthma education and self-management 2015 (07/01/2014 to 06/30/2015 dates of service). Minneapolis (MN): MN Community Measurement; 2015. 58 p.

Extent of Measure Testing

MN Community Measurement (MNCM) conducts validity testing to determine if quality measures truly measure what they are designed to measure, and conducts reliability testing to determine if measures yield stable, consistent results. Validity testing is done to see if the concept behind the measure reflects the quality of care that is provided to a patient and if the measure, as specified, accurately assesses the intended quality concept. Reliability testing is done to see if calculated performance scores are reproducible.

Evidence for Extent of Measure Testing

MN Community Measurement. Measure testing. [internet]. Minneapolis (MN): MN Community Measurement; [accessed 2015 Nov 12].

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Hospital Outpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Clinical Practice or Public Health Sites

Statement of Acceptable Minimum Sample Size

Specified

Target Population Age

Age 5 to 50 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

Measurement period will be a fixed 12-month period: July 1 to June 30

Denominator Sampling Frame

Patients associated with provider

Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
Patients who meet each of the following criteria are included in the population:

Patient was age 5 to 50 at the start of the measurement period.

Age 5 to 17 at the start of the measurement period.
Age 18 to 50 at the start of the measurement period.

Patient was seen by an eligible provider in an eligible specialty face-to-face visit at least two times during the last two measurement periods with visits coded with an asthma International Classification of Diseases, Ninth Revision (ICD-9) code (in any position, not only primary).

Patient was seen by an eligible provider in an eligible specialty face-to-face visit at least one time during the measurement period for any reason. This may or may not include a face-to-face visit with an asthma ICD-9 code.

Diagnosis of asthma. Refer to Table 1 in the original measure documentation for ICD-9 diagnosis codes for identifying asthma.

Exclusions

Patient was a permanent nursing home resident during the measurement period.

Patient was in hospice at any time during the measurement period.

Patient died prior to the end of the measurement period.

Documentation that diagnosis was coded in error.

Patient was coded with any of the following diagnoses (refer to Table 2 in the original measure documentation for ICD-9 diagnosis codes for identifying patients meeting exclusion criteria):

Cystic fibrosis
Chronic obstructive pulmonary disease (COPD)
Emphysema
Acute respiratory failure

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

The number of asthma patients who meet both of the following targets:

Asthma well-controlled (using the most recent asthma control tool result available during the measurement period). Specified asthma control tools include:

Most recent Asthma Control Test (ACT) has a score of 20 or above – for patients 12 and older
OR

Most recent Childhood Asthma Control Test (C-ACT) has a score of 20 or above – for patients 11 and younger
OR

Most recent Asthma Control Questionnaire (ACQ) has a score of 0.75 or lower – for patients 17 and older
OR

Most recent Asthma Therapy Assessment Questionnaire (ATAQ) has a score of 0 – Pediatric (for age 5 to 17 years) or Adults (for ages 18 years and older).

Patient not at elevated risk of exacerbation:

The total number of emergency department visits and hospitalizations due to asthma, as reported by the patient, are less than two occurrences. Patient reports values for both of the following:

Number of emergency department visits not resulting in a hospitalization due to asthma in last 12 months
AND

Number of inpatient hospitalizations requiring an overnight stay due to asthma in last 12 months

Exclusions
Unspecified

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Electronic health/medical record

Paper medical record

Type of Health State

Physiologic Health State (Intermediate Outcome)

Instruments Used and/or Associated with the Measure

- 2015 Optimal Asthma Control Measure Flow Chart
- Asthma Control Test (ACT or Child ACT)
- Asthma Control Questionnaire (ACQ)
- Asthma Therapy Assessment Questionnaire (ATAQ)

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Description of Allowance for Patient or Population Factors

This measure is stratified by the following age groups:

Pediatric patients age 5 to 17
Adult patients age 18 to 50

Standard of Comparison

not defined yet

Identifying Information

Original Title

Optimal asthma control 2015.

Measure Collection Name

Optimal Asthma Care

Submitter

MN Community Measurement - Health Care Quality Collaboration

Developer

MN Community Measurement - Health Care Quality Collaboration

Funding Source(s)

Unspecified

Composition of the Group that Developed the Measure

The Optimal Asthma Care measure was developed using a technical advisory workgroup and multi-stakeholder process.

Financial Disclosures/Other Potential Conflicts of Interest

Unspecified

Measure Initiative(s)

Physician Quality Reporting System

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Jan

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

This measure updates a previous version: Data collection guide: optimal asthma care 2014 (7/1/2013 – 6/30/2014 dates of service). Minneapolis (MN): MN Community Measurement; 2014 May 8. 56 p.

Measure Availability

Source available from the MN Community Measurement Web site.

For more information, contact MN Community Measurement at 3433 Broadway St. NE, Broadway Place East, Suite #455, Minneapolis, MN 55413; Phone: 612-455-2911; Web site: http://mncm.org; E-mail: info@mncm.org.

Companion Documents

The following is available:

> Snowden AM, Mlodzik R, Ghere E. 2014 health care quality report. Minneapolis (MN): MN Community Measurement; 2014 Dec. 335 p. This document is available from the MN Community Measurement Web site.

NQMC Status

This NQMC summary was completed by ECRI Institute on March 13, 2014. The information was verified by the measure developer on June 19, 2014.

This NQMC summary was updated by ECRI Institute on December 4, 2015. The information was verified by the measure developer on February 16, 2016.

Copyright Statement

Commercial use is defined as the sale, license, or distribution of the measure for commercial gain, or incorporation of the measure into a product of service that is sold, licensed or distributed for commercial gain. Commercial use of the measure requires a license agreement between the user and MNCM.

Production

Source(s)

MN Community Measurement. Data collection guide: optimal asthma control 2015. Asthma education and self-management 2015 (07/01/2014 to 06/30/2015 dates of service). Minneapolis (MN): MN Community Measurement; 2015. 58 p.

Disclaimer

NQMC Disclaimer

The National Quality Measures Clearinghouseâ„¢ (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the NQMC Inclusion Criteria.

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. Moreover, the views and opinions of developers or authors of measures represented on this site do not necessarily state or reflect those of NQMC, AHRQ, or its contractor, ECRI Institute, and inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.